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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,094	08/26/2003	Kee Siang Goh	70030427-1	4946
22878	7590	05/02/2005	EXAMINER	
AGILENT TECHNOLOGIES, INC. INTELLECTUAL PROPERTY ADMINISTRATION, LEGAL DEPT. P.O. BOX 7599 M/S DL429 LOVELAND, CO 80537-0599			TRAN, TAN N	
			ART UNIT	PAPER NUMBER
			2826	

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,094

Applicant(s)

GOH ET AL.

Examiner

TAN N. TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 3-9, 12 and 14-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 10, 11, 13 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Minhloan Tran
Minhloan Tran
Primary Examiner
Art Unit 2826

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restriction

1. In response to the election, note that “The applicants elect Invention I, and claims 1-13,18,20,21,22 read on invention I” and then, “applicant additionally elect Species I and Subspecies C, and claims 1,2,10,11,12,13,14,15,16,17,22”. However, some of claims 1,2,10,11,12,13,14,15,16,17,22 do not belong to invention I as applicant elected. Therefore, only claims 1,2,10,11,13,22 read on Species I, Subspecies C.
2. Applicant’s election with traverse of Species I, Subspecies C, 1,2,10,11,13 is acknowledge. The traversal is on the ground(s) that “it is not clear to the applicants why certain one of the method claims 13-22 are deemed to belong to class 257/98 (incoherent light emitter structure with element (e.g., lens, optical fiber, index of refraction matching layer, luminescent material layer, filter) integral with device or device enclosure or package) whereas the remaining method claims are deemed to belonged to class 438/22 (making device or circuit emissive of nonelectrical signal)”. These are not found persuasive because referring to the restriction requirement set forth in the Office Action, some method claims are similar to device claims, for example claim 1 is similar to claim 13, since did not claim any specific process step or any specific method. The traversal is on the ground(s) that “selection is inherent in providing a GRIN element having a length to pitch ratio corresponding to the desired radiation pattern. Moreover, the official action sets forth no prima facie case of distinctiveness between claims 15,16,17,18,22,22 and invention I” and “the requirement to elect species and subspecies on the grounds that no prima facie case of distinctiveness is set forth in the official action with respect

to the alleged species” These are not found persuasive because referring to the restriction requirement set forth in the Office Action because it clearly shows that the alternative method proposed by the examiner would be distinct from the process claimed. Applicant did not show the alternate method was incorrect. Additionally, the search is not coextensive as evidenced by the different fields of search for the process and product as cited in the previous restriction requirement. Furthermore, Applicant has not provided a convincing argument that the materially different processes would not be suitable in producing the claimed device. Therefore, the election requirement is made final.

Information Disclosure Statement

3. If applicant is aware of any relevant prior art, he/she requested to cite it on form PTO-1449 in accordance with the guidelines set forth in M.P.E.P.

609.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a light source, and length and pitch as recited in claims 1,13 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walt et al. (5,814,524) in view of Dempewolf et al. (5,815,318).

With regard to claims 1,13 Walt et al. discloses a fiber optic array serves as a light source; and a gradient index element 200 having a cylindrical refractive index profile in which the refractive index varies radially, the GRIN element 200 comprising a first end surface 208 opposite a second end surface 206 and characterized by a length-to-pitch ratio, the GRIN element 200 arranged with the first end surface 208 adjacent the fiber optic array to receive the light therefrom and emitting the light from the second end surface 206 in a radiation pattern dependent on the length-to-pitch ratio. (Note lines 10-21, 27-30, and 36-39, column 12, figs. 6,7 of Walt et al.).

Walt et al. does not disclose the refractive index is substantially constant axially.

However, Dempewolf et al. discloses the refractive index of optical element 46 is substantially constant axially. (Note lines 5,6, column 3, fig.2a of Dempewolf et al.).

Therefore, it would have been obvious to one of ordinary skill in the art to form the Walt et al.'s device having the refractive index is substantially constant axially such as taught by Dempewolf et al. in order to maximize the focused light beams.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walt et al. (5,814,524) in view of Dempewolf et al. (5,815,318) and further in view of Itoh et al. (2003/0081897).

Walt et al. discloses the GRIN element emits the light in a collimated beam. (Note lines 1,2, column 14 of Walt et al.).

Walt et al. and Dempewolf et al. do not disclose the length to pitch ratio is equal to one fourth.

However, Itoh et al. discloses the length to pitch ratio is equal to one fourth. (Note lines 4-11, paragraph 0018, fig. 21C of Itoh et al.).

Therefore, it would have been obvious to one of ordinary skill in the art to form the Walt et al. and Dempewolf et al.'s device having the length to pitch ratio is equal to one fourth such as taught by Itoh et al. in order to maximize the focused light beams.

Claims 10,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walt et al. (5,814,524) in view of Dempewolf et al. (5,815,318) and further in view of Wang et al. (2002/0122638).

Walt et al. and Dempewolf et al. do not disclose the light emitting device additionally comprises a header; the header comprises a cavity extending thereinto; the light source is mounted in the cavity defined in the header; and the GRIN element is engaged with the cavity.

However, Wang et al. discloses a support member 14 serves as a header wherein the support member 14 comprises a cavity extending thereinto; the light source 12 is mounted in the

cavity defined in the support member 14; and the GRIN element 16 is engaged with the cavity. (Note fig. 1 of Wang et al.).

Therefore, it would have been obvious to one of ordinary skill in the art to form the Walt et al. and Dempewolf et al.'s device having a support member serves as a header wherein the support member comprises a cavity extending thereinto; the light source is mounted in the cavity defined in the support member; and the GRIN element is engaged with the cavity such as taught by Itoh et al. in order to support the light emitting device.

Applicant's claim 10 does not distinguish over Walt et al. and Dempewolf et al. references and Wang et al. regardless of the process used to form the GRIN element is engaged with the cavity because only the final product is relevant, not the process of making such as "push fit".

Note that a "product by process" claim is directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Wertheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); *In re Fitzgerald*, 205 USPQ 594, 596 (CCPA); *In re Marosi et al.*, 218 USPQ 289 (CAFC); and most recently, *In re Thorpe et al.*, 227 USPQ 964 (CAFC, 1985) all of which make it clear that it is the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that, as here, an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that Applicant has burden of proof in such cases, as the above case law makes clear.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walt et al. (5,814,524) in view of Dempewolf et al. (5,815,318) and Wang et al. (2002/0122638) and further in view of Hamm (6,263,133).

Walt et al., Wang et al. and Dempewolf et al. do not disclose an index matching material located in the cavity.

However, Hamm discloses an index matching material 102 located in the cavity and between GRIN element 96 and optical fiber 104. (Note fig. 4 of Hamm).

Therefore, it would have been obvious to one of ordinary skill in the art to form the Walt et al., Wang et al. and Dempewolf et al.'s device having an index matching material located in the cavity such as taught by Hamm in order to reduce back reflection from optical fiber face.

Conclusion

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tan Tran whose telephone number is (571) 272-1923. The examiner can normally be reached on M-F 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for after final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

TT

April 2005